

dominal appendages of the male, and in the general markings of the whole body; and as this species from the Gulf of Georgia is found to be most closely allied to the *Raphidophora* of the shallow cave, so that from California, in the minutiae of its structural peculiarities, reminds us of that from the deeper cave; this will be seen in the shape and comparative size of the basal joints of the antennæ, in the compressed terminal joint of the maxillary palpus, as well as in its interior split, and in the length and slenderness of the legs; whilst in the tubercle of the vertex, in the shortening of the meso- and metanotum, and in the proportional length of the four anterior femora to the tibiæ, *R. subterranea* even approaches the genus to which *xanthostoma* belongs.

The Javanese species, *R. loricata*, Burm. (according to Serville's description), differs from all our species, in the form and comparative size of the terminal joint of the maxillary palpi, in the coxæ of mesothorax, in the terminal spines of the four anterior femora (from which characteristic Serville derives the generic name), in the character of the terminal spines of posterior tibiæ, in the non-compressed form of tarsi, and the presence of spines upon their first joint, and (in most) in the comparative length of the cerci.

From the European species, *R. palpata*, Charp., and *R. cavicola*, Fisch., ours differ mostly in the form and comparative size of the ovipositor, and I might add also in the general structure of the abdominal appendages, were it not certain that Fischer's description of these parts was taken from dried specimens, which could not exhibit their true character.

NOTE. In my comparisons I have made frequent mention of *R. maculata*, Harris, which is mentioned in the synonymous table as the same as *R. lapidicola*, Burm. I have not used the latter name, because I am sure that the insects before me were the *R. maculata*, Harr., while I am not equally confident that they were the *R. lapidicola*, Burm.

#### DESCRIPTIONS OF SHELLS COLLECTED BY THE NORTH PACIFIC EXPLORING EXPEDITION. BY DR. A. A. GOULD, (*continued.*)

**TECTARIUS LUTEUS.** T. parva, biconica, lutea, epidermide calcaræ incrustata, lineis incrementi tenuibus et lineis volventibus minutissimis antrorum crescentibus reticulata; anfr. 7, conicis, acutè carinatis, ad suturam imbricantibus et subnodulosis: apertura rhomboidea; labro acuto; columellā callo erecto indutâ. Axis, 6+; diam. 4 millim. Inhabits China Seas. W. S.

A curious little shell which I was at a loss at first where to place; but, on the whole, do not hesitate to place it under this genus.

**SIGARETUS LUCIDUS.** T. parvula, depressa, candida, tenuis, lineis incrementi et striis volventibus reticulata; anfr. 3+, apice e margine remoto, regione umbilicali concavo, calloso, minutè perforato;

apertura e tribus duas partes faciei ventralis amplexente. Long. 10 ; lat. 7 ; alt. 2 millim. Taken with the animal in the North China Seas. W. S.

**MARGARITA IANTHINA.** T. globoso-conica, tenuis, dilutè ianthina, striis crebris volventibus cincta, satis umbilicata, ad peripheriam subangulata; anfr. 6 + ventricosis; suturâ profundâ : apertura rotundata, anticè subangulata; columellâ rectâ, acutâ; fauce margaritacea. Axis, 8 ; diam. 20 millim. Inhabits Arctic Ocean.

Similar in form and size to *L. Schantarica*, Midd., but thinner, more angular, differently colored, and with a much larger umbilicus.

**MARGARITA MUSIVA.** T. pyramidalis, margaritacea, crustâ cine-reâ fusco tessellatâ induta; anfr. 6, ultimo tricarinato (ceteris bicarinatis); basi convexiusculo polito; umbilico ampio, conico, carinâ plicatâ marginato : apertura circularis; columellâ vix reflexâ, ad carinam umbilicalem terminante. Operculum corneum, lineis incrementi concinnè granulatis. Axis, 6 ; diam. 5 millim. Inhabits Hong Kong Harbor, in 10 fath., shelly gravel. W. S.

Allied to *M. carinata*, *biangulosa*, &c.

**MARGARITA ARTICULATA.** T. parva, globoso-conica, livescens; anfr. 6, rotundatis, ultimo filis circ. 5 (ceteris 3) cinctis, juxta suturam excavatis; filis coloribus pallidis et obscurioribus alternantibus articulatis, interspatiis concinnè clathratis; basi nitido concentricè striato; umbilico ampio eleganter plicato: apertura circularis; labro tenui. Axis, 5 ; diam. 6 millim. Inhabits Simon's Bay, Cape Good Hope. W. S.

Much like *M. dilecta* A. Ad.

**MARGARITA ALBULA.** T. parva, tenuis, ovato-turbinata, pallidè grisea, striis volventibus tenuibus insculpta; anfr. 4 citò crescentibus, rotundatis, ad peripheriam obtusis; basi convexo, arctè perforato : apertura subcircularis; peritreme acute, ferè continuo. Axis, 5 ; diam. 8 millim. Inhabits Arctic Seas. W. S.

Much like an overgrown *M. arctica*, but it is covered with an opaque calcareous crust; the suture is less impressed: the umbilicus smaller, and it is everywhere spirally striated.

**MARGARITA MUSTELINA.** T. minuta, tenuis, globoso-conica, infra concentricè striata, livida albo propè suturam parcè strigata; anfr. 4 ventricosis; peripheriâ obtusè angulatâ; basi rotundato latè perforato : apertura ovata; columellâ tenui, arcuatâ. Diam. 4 ; axis, 3 + millim. Inhabits Hakodadi Bay, at low water. W. S.

**MARGARITA LENTICULA.** T. minuta, depressa, lenticularis, con-cavo-convexa, lactea, striis tenuissimis ordinatis cincta; anfr. 4 de-clivibus, propè suturam excavatis; areâ umbilicali lirâ in labro desinente cinctâ : obliquè et arctè perforata : apertura rotundata

quodammodo transversa ; columellâ cylindricâ umbilico obviâ. Axis, 3 ; diam. 5 millim. Sea shore, Loo Choo. W. S.

This pretty, depressed species may very likely belong to a distinct genus ; but I find no other one which will better receive it.

**MARGARITA PINTADO.** T. parva, ovato-globosa, depressa, tenuis, cinerea ; anfr. 5 ventricosis juxta suturam planulatis, liris 5 volventibus fusco et albo articulatis cinctis ; basi rotundato, latè perforato, concentricè sulcato et articulato : apertura rotundato-ovata ; labro tenui ; columellâ incrassatâ, nacreâ, anticè cuspidatâ. Axis, 4 ; diam. 5 millim. Inhabits Simon's Bay, Cape Good Hope, 12 fathoms, sandy. W. S.

Characters in many respects like those of *Monilea*, rather than of *Margarita*.

**GEN. MONILEA.** Ommatophori externi, liberi ; tubus analis ex angulo postico aperturæ protrusus ; lobi cervicale valdè fimbriati ; solea elongata, lanceolata, anguli anteriores valdè protracti ; cirrhi laterales utrimque quinque quorum postici multò breviores.

These characters are drawn from *M. nuclees* Phil. and have not before been given, the genus having been established upon the shell alone.

**MONILEA APICINA.** T. parva, ovato-conica, tenuis, filis numerosis subequalibus cincta ; apice et flammulis sparsis radiantibus rosaceis ; anfr. 5 convexiusculis ad peripheriam obtusis ; suturâ profundâ ; basi convexo, lineis incrementi nonnihil granulatis ; umbilico minuto, costâ callosâ marginali et alterâ interiori cincto : apertura ferè circularis. Axis, 5 ; diam. 6 millim. Inhabits Port Jackson. W. S.

**MONILEA VERNICOSA.** T. parva, tenuis, depressa, orbicularis, nitida, minutissime reticulata, virescens strigis saturatoribus ad suturam et ad peripheriam quadratim dilatatis et supernè cingulis 4 albo articulatis pieta ; anfr. 5 convexis ad peripheriam subacutis ; suturâ profundâ ; basi convexo ; umbilico profundo pallido intus excavato et plicato : apertura ampla ; columellâ expansâ, anticè angulatâ, extus dentatâ. Axis, 4 ; diam. 6 millim. Inhabits Ousima. W. S.

**MONILEA NANA.** T. minuta, solida, ovato-globosa, albida ; anfr. 4 ad suturam plicatis, ultimis liris granulosis 2-3 cinctis ; apice obtuso levigato ; basi convexo, concinnè striato ; umbilico satis magno, plicato-crenulato : apertura circularis ; labro crasso ; columellâ tenui, anticè dilatata. Diam. 2+ millim. Inhabits China Coral Seas. W. S.

**MONILEA INEPTA.** T. minuta, solida, ovato-conica, filis (quorum singulo eminentiore) articulatis rosaceis vel argillaceis cincta, intervallis pallidioribus, regione suturali tessellato ; anfr. 4+ convexis ; apice obtuso ; basi convexo ; umbilico modico, plicato, albido cincto :

apertura circularis; labro simplici, crasso; columellâ æquabili. Diam. 3 millim. Inhabits Kagosima Bay. W. S.

*MONILEA GLAREOSA*. T. parva, solida, ovato-globosa, cinerea flammulis radiantibus fuscenscentibus variegata; anfr. 5 ventricosis, apicalibus plicato-granulosis, ceteris liris frequentibus, quorum 3-4 majoribus interdum subdivisis cinctis; basi rotundato; umbilico modico, ad marginem plicato-crenato: apertura circularis; labro in-crassato, simplici. Diam. 5 millim. Inhabits Loo Choo, Ousima and Kikaia; under surf-washed stones. W. S.

*MONILEA SPURIA*. T. parva, rufa, crassa, deppressa, orbicularis, albida; anfr. 4, supernis simplicibus, alteris liris 4 elevatis et lineis incrementi decussatis, ultimo ad peripheriam obtuso; basi convexo; umbilico ampio, profundo, scalariformi: apertura circularis; columellâ tenui; labro anticè dilatato. Diam. 5; axis, 4 millim. Inhabits Simon's Bay; low-water mark, under stones. W. S.

*ETHALIA RUFULA*. T. parvula, lenticularis, polita, nitida, maculis subquadratibus ad peripheriam et propè suturam, et lineis angulatis rufis ornata: anfr. 6 convexiusculis, ubique sulcis angularibus remotis cinctis; suturâ profundâ; basi ferrugineo reticulato; umbilico lato, scalariformi, margine decoloratâ: apertura angulata; callo columellari tenui, umbilicum haud longe ambiente. Axis, 4; diam. 6 millim. Inhabits Ousima. W. S.

*ETHALIA CAPILLATA*. T. parva, lenticularis, levis, nitida, viridans vel fulvescens lineis tenuibus angulatis gregatim intersecantibus et strigis radiantibus ornata; anfr. 6 planulatis ad peripheriam acutis; suturâ vix impressâ; basi convexo radiatim plicato; umbilico parvo, callo pallido deinde fossâ ferrugineâ cincto: apertura parva, rhomboidea: labro acuto; columellâ callo linguiformi umbilicum subtegente instructâ. Axis, 4+; diam. 8 millim. Coast of China, 23° 30' N. in 25 fathoms, sandy. W. S.

*ROTELLA SUPERBA*. T. magna, solida, depresso-conica, nitida, fusco-viridis; anfr. 7, apicalibus integris, ceteris 4-sulcatis, interspatiatis lineis albidis tessellatis; basi convexo, albido vittâ viridi articulatâ ornato, callo copioso impleto nunc rubino nunc pudorino tineto: apertura rotundato-ovata; columellâ incrassatâ. Axis, 15; diam. 20 millim. Found dead on the shore, Kagosima Bay. W. S.

*CLANCULUS JUCUNDUS*. T. parvula, deppressa, ovato-conica, ochracea vel rufescens; anfr. 5 convexis propè suturam tessellatis interdum omnino strigatis, liris inequalibus cinctis ad anfr. majores gemmatis: suturâ canaliculatâ; basi rotundato; umbilico crenulato; dente columellari eminenti, acuto; labro intus sulcato. Axis and diam. 5 millim. Inhabits Sydney, N. S. W.

About the size of *C. minor*.

**DILOMA NANA.** T. minuta, fusca, ovato-globosa ; anfr. 4 convexis benè discretis, apicali simplici, alteris liris et sulcis angustioribus cinctis, liris ordinatim quasi plicatis ; basi rotundato, pallidiori, vix perforato ; columellā acutā, denticulatā ; labro acuto intus undulato ; fave lividā. Diam. 5 millim. Inhabits Loo Choo. W. S.

**DILOMA VERRUCA.** T. parvula, ovato-conica, dilutè rosacea ; anfr. 4 convexis suturā canaliculatā sejunctis, liris binis elevatis cinctis, tribus minoribus anticè, duobus posticè additis, lamellis incrementi decussantibus, ad decussationes dilatatis ; basi convexo aretè perforato ; dente columellarī parvo ; labro crenulato, intus sulcato. Axis, 4 ; diam. 3 millim. Inhabits Coral Seas, China. W. S.

**ELENCHUS OCELLATUS.** T. parva, elevata, ovato-conica, polita, posticè ex rufo virescens, anticè rubescens, lineis volventibus pallidis rufomarginatis circ. 4 et lineis flexuosis obliquis ornata ; anfr. 7 vix convexis, punctis albis circ. 6 cinctis, ultimo ad peripheriam obtusè angulato ; basi convexo : apertura ovata intus virescens ; columellā pallidā, dente obsoleto albido instructā. Axis, 12 ; diam. 7 millim. Inhabits Sydney, N. S. W. W. S.

Allied to *E. minor*.

**ELENCHUS EXIGUUS.** T. minuta, levis, ovato-conica, acuta, flavida rosacea vel fulvida plus minusve lineis flexuosis saturationibus vel vittis articulatis ornata ; anfr. 5 ventricosis : apertura rotundato-ovata ; columellā planatā, decoloratā, dente acuto deflecto munitā. Axis, 2 ; diam. 1.5 millim. Inhabits Port Jackson.

**CANTHARIDUS LINEOLARIS.** T. elevato-conica, perforata, aureo-viridis lineis angulatis luteis propè suturam dilatatis ibi nigro maculatis, striis incrementi et striis volventibus subtilissimis reticulata ; anfr. 7 planulatis, ultimo angulato : apertura parva, subtriangularis. Axis, 7 ; diam. 4 millim. Found at Sydney, N. S. W. W. S.

**EUTROPIA MODESTA.** T. parva, ovato-conica, glabra, lutescens fasciis obscuris articulatis et maculis fuscis ad suturas et ad basim ornata ; anfr. 6 ventricosis : apertura rotundato-ovata ; columellā pallidā vix incrassatā. Axis, 10 ; diam. 6 millim. Inhabits Loo Choo. W. S.

**BANKIVIA LUGUBRIS.** T. parva, ovato-turrita, glabra, rubida, lineis inequalibus saturationibus cineta ; apice pallido ; anfr. 8 ventricosis : apertura subcircularis, trientem longitudinis testæ adequans ; columellā tenui, albâ, arctissimè perforatâ ; labro acuto pallido, intus rufo submarginato. Axis, 12 ; diam. 6 millim. Inhabits Sydney, N. S. W. W. S.

Most nearly allied to *B. major*.

**ZIZIPHINUS RUBIDUS.** T. acutè conica, solida, nitida, aurantiaca flammulis saturationibus flexuosis radiantibus variegata ; anfr. 7 im-

bricantibus, sulcis tribus reclivantibus aratis; peripheriâ obtusâ; basi planulato, imperforato, striis concentricis insculpto: apertura subquadrata; columellâ brevi, porcellanâ, anticè attenuatâ; fauce argilaceâ, levi. Axis, 15; diam. 12 millim. Habitat —?

**ZIZIPHINUS INFUSCATUS.** T. parva, conica, albida maculis fuscis subquadratis pieta; anfr. 8, seriebus 7 granularum (minoribus sâpè additis) quarum suturali et periphericâ subquadratis et plerumque tessellatis; basi convexo, filis 8 concentricis, radiatim clathratis insculpto; regione umbilicali excavato, imperforato: apertura subquadrata ad columellam angulata; columellâ posticè rotundatâ, anticè obsoletè dentatâ; fauce margaritaceâ. Axis, 10; diam. 9 millim. Inhabits Kagosima Bay. W. S.

Possibly may be the young of *Z. pyramis*; also like *Z. millegranus*.

**ZIZIPHINUS ACUTUS.** T. minuta, acutè conica, prasina rosaceo et albo variegata, striis tenuibus volventibus impressa, interspatiis cinnè clathratis; anfr. 8 subconcavis anticè dilatatione interdum duplici etiam noduloso munitis; basi convexiusculo, regione umbilicali rosaceo, vix perforato: apertura subquadrata. Axis, 4; diam. 3 millim. Inhabits Eastern Coral Seas. W. S.

**ZIZIPHINUS URBANUS.** T. parva, ovato-conica, cinerea, ad suturam et ad peripheriam maculis quadratis pallidis et fuscis seriatim articulatis ornata, liris ordinatis simplicibus ad 6 (interdum nonnullis tenuioribus) cincta, interspatiis exiliter clathratis; anfr. 7 convexis; peripheriâ obtusâ; basi concavo; umbilico modico, costâ marginato: apertura subcircularis; columellâ arcuatâ, margine erecto. Axis, 6; diam. 5 millim. Inhabits Kagosima Bay. W. S.

**POLYDONTA (Infundibulum) LACERTINUM.** T. depresso-conica, cinerea olivaceo variegata; anfr. 10 sub-concavis supernis seriatim granulosis et ad suturam inconspicuam subcrenulatis, ultimo imprimis granulis compressis obliquis seriatim cincto, tunc serie minori, deinde duobus remotioribus medianis, postea serie minori, denique ad peripheriam duabus majoribus; basi vix convexo, liris granulosis fuseo maculatis insculpto; umbilico lato, polito, nacreo; columellâ lobatâ, flexuosa; fauce margaritacea: apertura dolabridormis; labro acuto. Diam. et axis, 25 millim. Inhabits Hong Kong Harbor. W. S.

Resembles *P. Hanleyanus Rv.* but has fewer series of granules, and is granular beneath.

**POLYDONTA (Infundibulum) GLORIOSUM.** T. depresso-conica, solida, straminea flammulis rosaceis alternantibus picta; anfr. 8, posticè seriebus tribus granularum et anticè nodulis elongatis compressis circ. 16 ornatis; basi complanato, stellato, liris 6 granulatis fuseo articulatis insculpto; infundibulo albo polito costis duabus cincto; columellâ edentatâ; fauce margaritacea, tricostatâ. Axis et diam 30 millim. Inhabits Japan. W. S.

**CHLOROSTOMA RUGATUM.** T. solida, depressa, ovato-conica, fuscognira, striis incrementi lamellosis; anfr. 6 admodum convexis, posticis transversim striatis, anticis plicis ad suturam tuberculosis in undulas obliquas divaricantes desinentibus ornatis; basi convexo, spiraliter striato, regione umbilicali impresso, imperforato, albido; dente columellari acuto: apertura magna, rotundata; faucee argentatâ. Diameters about one inch. Inhabits Hakodadi Bay and Simoda. W. S.

Closely allied to *C. nigerrima*.

**CHLOROSTOMA ACHATES.** T. pyramidalis ad peripheriam acutè angulata, levis vel striis incrementi solum insculpta, ex olivaceo cincrascens; anfr. 5 supernis undulatis, ultimo expanso, concavo; basi concavo, polito, olivaceo lineis albidis radiato, latè et profundè perforato: apertura magna; labro acuto secundum peripheriam valde prolongato; columellâ subdentatâ. Diam. 1.75, poll.; axis, 1.50 poll. Inhabits Simoda. W. S.

The peculiar agate-striped base is quite characteristic.

**CHLOROSTOMA UNDATELLA.** T. parva, deppressa, ovato-conica, nitidula, nigra, striis tenuibus volventibus et plicis acutis obliquis divaricantibus ornata; anfr. 6 convexiusculis ad peripheriam angulatis; basi convexiusculo, latè perforato (interdum ferè elauso); columella dentatâ, albâ; labro acuto, nigro cretaceo submarginato; fauce iridescente. Diam. 15; axis, 10 millim. Inhabits Ousima, Kagosima, and Taneogosima, on surf-washed rocks at low-water mark. W. S.

**MONODONTA GLABRATUM.** T. globoso-conica, crassa, polita, fuscoviridis, interdum ad verticem nigrescens et ad peripheriam pallidior, ubique sulcis 4-5 cineta, interspatiis tessellatim suleatis; anfr. 7 convexis: apertura ampla, rotundato-ovata, alba; labro intus suleato; dente columellari acuto, sulcato. Axis, 15; diam. 13 millim. China Seas. W. S.

Has a general resemblance to, and may be a variety of, *M. tuberculata*; but its rubbed look, tessellated rather than papillated surface, and shorter axis distinguish it.

**GIBBULA FUCATA.** T. parva, orbicularis, deppressa, supra levis, infra concentricè striata, livido-cinerea strigis rubris vel fuscis saturatiōri marginatis ad peripheriam angulatis et subtus interdum tessellatis variegata, sub crustâ calcareâ iridescent; anfr. 5 declivibus; suturâ conspicuâ; basi arctissimè perforato: apertura ampla, ovata; columellâ arcuatâ, subreflexâ. Diam. 7; axis, 5 millim. Inhabits —?

**GIBBULA REDIMITA.** T. parva, ovato-conica, ventricosa, tenuis, sub crustâ calcareâ argentata, liris remotis planulatis (ad spiram 5) cineta, pallidè incarnata, liris rufo et albo articulatis; anfr. 7 ventricosis, tabulatis; basi rotundato, vix fissurato: apertura rotundato-

ovata; columellā tenui, erectā, posticē dilatatā, anticē planulatā. Axis, 7; diam. 6 millim. Inhabits Hakodadi Bay. W. S.

Like *G. nivosa* A. Ad., but that species is not granulate.

**GIBBULA MUSIVA.** T. parva, ovato-globosa, tenuis, liris transversis ubique cineta, lutea nigro ordinatim tessellata; anfr. 5 convexis; basi imperforato (junioribus exceptis): apertura rotundato-ovata; columellā inerassatā anticē subdentatā; fauce nacreā, sulcatā. Diam. 6 millim. Inhabits Simon's Bay. W. S.

The animal has a bilobed head, the lateral mantle without lobes behind the slight emargination which forms the anterior lobe.

**GIBBULA LOCULOSA.** T. parva, globoso-conica, depressa, sub-tenuis, rosaceo, fusco etc. et strigis radiantibus flavidis variegata; anfr. 5 ventricosis, liris 5 et filis minoribus 1-3 ad interspatia exiliter clathrata cinctis; liris levibus, coloribus articulatis; suturā profundā; basi rotundato concentricē arato; regione umbilicali pallido arctē perforato: apertura rotundato-ovata; fauce margaritacea, sulcatā. Axis, 6; diam. 7 millim. Inhabits False Bay, Cape Good Hope. W. S.

Animal with the lateral lobes smooth-edged; four pairs of lateral cirrhi not very long, the third pair very short.

**GIBBULA GAUDIOSA.** T. parva, ovato-globosa, sub crustā cretacea margaritacea, supernē rosacea alibi strigis radiantibus rubris, rufis et flavidis ornata; anfr. 5 filis circ. 5, minoribus interpositis, cinctis; basi rosaceo sèpè flavido tessellato, concentricē striato, regione umbilicali calloso plerumque imperforato: apertura rotundato-ovata: labro tenui versus columellam ampliato; fauce nacreā, sulcatā. Diam. 6 millim. Inhabits False Bay. W. S.

One specimen is beautifully tessellated on the ridges with brown, roseate, blue, golden-yellow, white, and cream color.

**GIBBULA LEPIDA.** T. parva, globoso-lenticularis, levis, murina, vittā peripherali et vittā suturali nigris albo tessellatis picta; anfr. 5; suturā vix impressā; basi convexo, striis concentricis et maculis albido ornato; regione umbilicali excavato, callo induito: apertura parva, obliqua; columellā acutā, anticē dentatā; labro acuto; fauce margaritacea, sulcatā. Diam. 5; axis, 4 millim. Inhabits New Ireland. W. S.

Somewhat like *G. spilota*.

**GIBBULA FULGENS.** T. parva, globoso-conica, subtenuis, sub epidermide tenui fuscens vividē iridescent; anfr. 5, costis 4-5 fuseo et rosaceo articulatis cinctis; suturā obviā; basi convexo, costulis benē dispositis sculpto, arctē perforato; columellā arcuatā, expansā, erectā; fauce deauratā vividē iridescente. Operculum corneum multispirale. Diam. 7 millim.

**COLLONIA LENTICULA.** T. minuta, solida, alba, globoso-lenticu-

laris, ubique striis confertis tenuissimis cineta; anfr. 4 depresso-convexis citò crescentibus; basi convexo, imperforato, callo copioso munito: apertura parva, circularis. Diam. 4; axis, 2 millim. Inhabits China Coral Seas. W. S.

**COLLONIA QUANTILLA.** T. minuta, solida, depresso-orbicularis, rosacea sulcis pallidioribus circ. 4 cineta; anfr. 4 vix convexis, peripheriâ obtusâ; basi convexo, pallidiore, arctè perforato: apertura circularis; labro crasso; columellâ robustâ declivi. Diam. 3; axis, 2+ millim. Inhabits Simon's Bay. W. S.

**TURBO AMUSSITATUS.** T. globoso-conica, crassa, rufa; anfr. 6 ventricosis, costis inequalibus irregularibus 6-8 et intermedianis exilibus 4-5 cinctis, costis oblique striatis; basi concinnè reticulato, perforato tandem callo ocluso: apertura subcircularis; columellâ expansâ duplii; fauce margaritacea. Operculum osseum, paucispirale. Axes, 12 millim. Inhabits —?

**TURBO NOCTURNUS.** T. parvula, globoso-conica, solida, rufo-fuscescente et rosaceo alternatim strigata; apice albo; anfr. 5 convexis, sulcis equalibus aratis; suturâ impressâ; basi convexo, imperforato, concentricè striato: apertura subcircularis; columellâ expansâ, argentatâ, granulatâ, extus erectâ. Operculum osseum, paucispirale, apice excentrico, extus granulato. Axes, 7 millim. Inhabits Simoda. W. S.

**CHÆNA LAGENULA.** T. elongata, arcuata, tenuis, lactea, posticè quadrangularis, anticè declivis et in rostram protracta; umbonibus ventricosis ad quadrantem anticalem positis; margine dorsali posticâ rectâ; marg. ventrali incurvatâ; angulis posticis rotundatis; facie dorsali latè ovato-cuneatâ, posticè citò angustatâ; facie ventrali ovatâ omnino hiante. Long. 12; lat. 6; alt. 3 millim. Inhabits Hong Kong harbor, 10 fathoms, shelly sand. W. S.

Animal like that of *Gastrochæna*; but the mantle envelopes all the anterior portion of the shell, and also the anterior half of the ventral margin.

This shell belonging to the builder of the old *Fistulana lagenula* of Lamarck, has not heretofore been described, though the curious flask-shaped enclosure has been familiar. The shell has the general characters of that of *Fistulana clava* Lk, *Chæna mumia* Gray. Still the ovate, curved form and the sculpture of the shell, and the peculiar, artichoke-like or bulbous structure of the enclosing capsule, made up of successive calcareous cups involving bits of shell and sand, together with the proportions of the animal will, I think, authorize a generic distinction. I would propose, in that case, the name *CUCURBITULA*, which at once expresses the cup-like elements and general gourd-like form.

**THRACIA PUSILLA.** T. minuta, rotundato-ovata, flavescens, anticè latè rotundata, posticè truncata (angulo dorsali recto) concentricè exiliter undulata; umbonibus vix postmedianis; declivitate umbonali angulatâ. Long. 8; alt. 5; lat. 4 millim. Inhabits Simoda. W. S.

A little like *T. myopsis*, Beck, which seems to be the same as *Anat. papyracea* Say.

**THRACIA CULTRATA.** T. parva, alba, tenuissima, ovato-rhomboidea, ventricosa, intus argentata, anticè semi-elliptica latè rotundata; umbonibus postmedianis acutis; margine dorsali posteriori declivi, extremitate truncatâ, angulo superiori acuto; declivitate umbonali acutâ; margine ventrali vix arcuatâ; apophysi cardinali triangulari (valvâ sinistrâ ignotâ). Long. 8; alt. 6; lat. 4 millim. Inhabits Port Jackson, sandy mud, 8-15 fathoms. W. S.

**THRACIA CONCINNA.** T. parva, alba, transversa, anticè rotundata, posticè truncata, convexiuscula, minutissimè punctata; umbonibus postmedianis, declivitate umbonali angulatâ, valvis magnitudine et convexitate satis discrepantibus: cardo debilis; fissurâ apicali perviâ. Long. 17; alt. 11; lat. 8 millim. Inhabits Kagosima Bay. W. S.

Much like *T. villosiuscula* in outline, but more convex.

**MYODORA FLUCTUOSA.** T. parva, tenuis, albida, umbonibus ferè medianis: valv. dextra convexa, posticè triangularis, apice truncatâ, undulis concentricis, circ. 20 ad margines haud protractis ornata; (valvâ sinistrâ ignotâ): cardo debilis; dentibus elongatis. Long. 8; alt. 7; lat. 3 millim. Inhabits Kagosima Bay. W. S.

Allied to *M. brevis*, which is larger and more finely ribbed. There is one in the Cuming Coll. much like it.

**LYONSIA VENTRICOSA.** T. ovato-falcata, tenuis, fragilis, lucida, straminea, ventricosa, concentricè exiliter striata et rugis hispidis radiata; umbonibus satis antemedianis; extrem. anticâ rotundatâ; extrem. posticâ angustante ad apicem truncatâ; margine ventrali lentè arcuatâ; cardine valdè debili. Long. 17; alt. 9; lat. 8 millim. Inhabits Hakodadi Bay, 2-6 fathoms, sandy mud. W. S.

Its shorter and less slender form, and its color, distinguish it from *L. Norvegica* and *hyalina*.

**LYONSIA (Pandorina) FLABELLATA.** T. oblongo-ovata, nasica, ventricosa, tenuis, opalina, straminea, exilissimè striata; umbonibus ad trientem anteriorem sitis; extremitate anticâ arctè rotundatâ; margine dorsali posticâ rectâ; margine ventrali unâ cum extrem. posticâ continuò arcuatâ usque ad angulum superiorem: cardo debilis; sulco ligamentali angusto; paginâ interiori opalinâ. Long. 17; alt. 10; lat. 6 millim. Inhabits Arctic Ocean. W. S.

Very close upon *P. arenosa* Möll., but the striae are more numerous and delicate.

**NEERA ADUNCA.** T. minuta, alba, globosa, ovato-triangularis, concentricè lirata; umberibus ferè medianis, elevatis, tumidis: extremitate anticâ globosâ; extrem. posticâ subitò angustatâ, triangulare acutâ, deflectâ; margine ventrali concavè arcuatâ. Long. 5; lat. et alt. 4 millim. Inhabits Kagosima Bay, sandy mud, 12-15 fathoms. W. S.

**THEORA LUBRICA.** T. parva, fragilis, pellucida, nitida, straminea, ovato-crescentica, ventricosa, posticè compressa; umberibus nonnihil antemedianis; extremitate anticâ acutè rotundatâ: extrem. posticâ acutâ; margine ventrali benè arcuatâ; costâ internâ ex umberibus obliquè antrorsum productâ. Long. 11; alt. 7; lat. 3 millim. Inhabits Hakodadi Bay, very common in mud, 6 fathoms. W. S.

**THEORA NITIDA.** T. tenuis, fragilis, nitida, lucida, alba, elongato-ovata, subfalcata, epidermide stramineâ induta; umberibus antemedianis; extremitate anticâ rotundatâ; extrem. posticâ acutâ, compressâ, subadscendente; margine dorsali posticâ declivi; margine ventrali arcuatâ: cavositas porcellana, rosaceo tineta, radiatim tenuiter striata. Long. 14; alt. 8; lat. 5 millim. Inhabits Hong Kong harbor.

Possibly *T. fragilis* Hinds, but seems smaller and more slender.

**THEORA OBTUSA.** T. parvula, ovalis, tenuissima, hyalina. equilateralis, utroque extremitate rotundata, tenuissimè radiatim striata; costâ internâ gracili, elongatâ, lacteâ. Long. 10; alt. 6; lat. 3 millim.

Only one valve was obtained, evidently more equilateral, thin, and obtuse posteriorly than any described species.

**SAXICAVA FLACCIDA.** T. tenuis, subnacreæ, multiformis plerumque subquadrata variè distorta, concentricè undulata, epidermide tenui ochraceâ rugosâ induta; umberibus terminalibus, tumidis; declivitate post-umberonali carinatâ interdum spinulosâ: cavositas subnacreæ; cardinis dente valido elongato, uncinato. Long. 20; alt. 13; lat. 10 millim. Inhabits Hong Kong and Simon's Bay. W. S.

The strong cardinal tooth and the semi-pearly structure are altogether unusual for this genus. It would come under *Hiatella* or *Rhomboides*, which are now regarded as variations of *Saxicava*. I cannot distinctly make out a pallial impression. The animal has a byssus. Perhaps these shells have been confounded with *Sax. rugosa*, which is said to come from Cape of Good Hope, China, &c. I am by no means certain that the shells from the two localities which I have had under inspection are the same. Those from the latter locality are certainly much the smallest.

**CRYPTOMYA TRUNCATA.** T. tenuis, alba, rotundato-ovata. posticè obliquè truncata; umberibus submedianis, parvis; valvâ (dextrâ) tumidâ, fastigio acuto ab umbone ad angulum postero-ventralem

tendente divisâ ; areâ anticâ striis concentricis et posticè striis radian-tibus ornatâ ; areâ postero-dorsali triangulari eburneâ, sulco radiante partitâ, et striis lamellosis concentricis insculptâ. Long. 18 ; alt. 13 ; lat. 10 millim. Inhabits the China Sea, lat. 24° N. W. S.

The cartilage pit is oblong, narrow, somewhat oblique, and nearly appressed against the margin ; behind it is a protrusion of the margin almost like a lateral tooth. Only one valve having been examined, the generic place is not fully settled.

**PANOPÆA FRAGILIS.** T. elliptica, tenuis, fragilis, livido-albida, concentricè undulata ; umbonibus submedianis ; extremitate anticâ obtusè rotundatâ ; extrem. posticâ subtruncatâ ; cardine debili ; apophysi ligamentali brevi ; dente elongato ; margine dorsali ad basin dentis fissuratâ. Long. 2 ; alt. 1, 5 ; lat. 1 inch. Inhabits Hakodadi Bay. W. S.

Remarkable for its fragile structure and waved surface, like some of the Thraciæ, or Mactraceæ, or still more like Pholadomya.

**PANOPÆA GENEROSA.** Several specimens were obtained at Awatska Bay, Kamtschatka, which are probably this species ; but the beaks are much more anterior, the posterior truncation is much more oblique and in a different direction, and the gape is much less than in the specimen originally described. They have also a double structure,—an inner porcellaneous layer, and a more earthy, somewhat crystalline coat, which extends beyond the first at the margin. This latter crystalline or tessellated structure is very clearly exhibited, and probably obtains in all the species. The variation in outline from the original type was so great that I had named these specimens *P. saginata*.

**CORBULA VENUSTA.** T. parva, solida, albida (vel rosacea) ovato-triangularis, admodum compressa, subæquivalvis, concentricè arata, liris intercurrentibus rotundatis ; umbonibus medianis anticè excavatis ; extremitate anticâ rotundatâ ; extrem. posticâ altiori et latiori, vix truncatâ ; margine dorsali arcuata ; declivitate umbonali carinatâ. Long. 10 ; alt. 7 ; lat. 4 millim. Inhabits Hakodadi Bay, in shelly sand, 5-8 fathoms. W. S.

Some smaller specimens are proportionally shorter, and have the grooves much more distant, and if seen alone, would be considered a different species.

**CORBULA (Azara) RUSTICA.** T. parva, ovato-trigonalis, solida, lævis, epidermide tenui rufescente induita ; umbonibus submedianis inconspicuis, erosionis ; valvæ majoris marginibus dorsalibus arcuatis, declivibus ; extremitate anticâ rotundatâ ; extrem. posticâ obtusè truncatâ ; valvâ alterâ graciliori, penitus inclusâ ; declivitate umbonali obtusè angulatâ ; cardine debili ; cavositate cretaceâ. Long. 15 ; alt. 9 ; lat. 5 millim. Inhabits Whampoa. W. S.

Some of the specimens are much more triangular than others.

**SOLECURTUS ABBREVIATUS.** T. tenuis, elongato-rhomboidea compressa, striis incrementi insculpta, sulco radiante obliquo albido-marginato excepto; umbonibus minimis medianis: margine dorsali anticâ rectâ, declivi; extremitate anticâ obliquè retrorsum truncatâ; angulo dorsali postico declivi; angulo postico ventrali rotundato; margine ventrali incurvatâ. Long. 45; lat. 10; alt. 20 millim. Inhabits Hong Kong. W. S.

**SOLECURTUS STRIGOSUS.** T. tenuis, compressa, transversè oblonga, concentricè striata; epidermide flavo-viridi, posticè verticaliter rugosâ; umbonibus minimis ad quadrantem anteriorem sitis; margine dorsali anticâ declivi; extrem. anticâ obliquè retrorsum truncatâ; angulo superiori acuto; extremitate posticâ acutè rotundatâ; margine ventrali incurvatâ; declivitate umbonali obtusè angulatâ. Long. 50; alt. 7; lat. 7 millim. Inhabits Whampoa. W. S.

**SOLECURTUS DEBILIS.** T. parva, tenuis, lucida, alba, oblongo-ovalis, compressa, concentricè striolata, striis in medio obliquis, epidermide flavescente tenuissimâ hic illuc induta; umbonibus propè trientem longitudinis sitis, posticè excavatis; extrem. anticâ rotundatâ; extrem. posticâ aeutiori; margine dorsali posticâ demum declivi; margine ventrali quantulum concavâ. Long. 25; lat. 5; alt. 7 millim. Inhabits Port Lloyd, and Loo Choo Island. *Capt. Rodgers.*

**SOLEN STRICTUS.** T. valdè elongata, marginibus ferè parallelis; marg. dorsali lentè declivi; extremitate anticâ obliquè truncatâ; extrem. posticâ quadratâ, angulis rotundatis; epidermide nitidâ, flavidocorneâ, lineâ diagonali inconspicuâ; dente terminali; cavositate incarnatâ. Long. 4.5; alt. 0.7; lat. 0.5 poll. Inhabits Hakodadi Bay. W. S.

General features like *S. corneus* Lk, but much larger, and proportionally more slender.

**SOLEN GRACILIS.** T. tenuis, gracilis, valdè elongata, subcylindrica, vix arcuata, epidermide flavo-virescente nitidâ induta; marginibus parallelis; extrem. anticali obliquè truncatâ, sulco subterminali ferè obsoleto; extrem. posticali obliquè antrorsum truncatâ, angulis rotundatis; dente cardinali terminali, in utraque valvâ singulo. Long. 4.5; alt. 0.6; lat. 0.4 poll. Inhabits Hakodadi, on sandy beaches. W. S.

The nearly straight, proportionally slender form, and very oblique anterior truncation afford obvious characters.

**MACHLERA SODALIS.** T. fragilis, compressa, elongato-ovata, purpurascent, epidermide tenui fusco-corneâ induta; umbonibus ad quadrantem anteriorem sitis, conspicuis, acutis; extremitate anticâ latè rotundatâ, retrorsum sensim angustatâ; paginâ interiori purpurascente; costâ cardinali albâ antrorsum inclinatâ et inflecta. Long. 32; lat. 7; alt. 22 millim. Inhabits Hakodadi Bay. W. S.

Greatly resembles *M. costata* Say. It has a more purplish hue, a more shining epidermis; but the principal difference is in the posterior acumination, and the gentle sweep as well as inclination forwards of the internal rib.

**SOLEMYA PUSILLA.** T. fragilis, oblongo-ovalis, vix retrorsum dilatata, epidermide tenui pallidâ sub lente striis confertis radiantibus insculptâ, et radiis fuscis remotis pictâ; extremitatibus rotundatis; margine dorsali rectâ; margine ventrali leniter arcuatâ; umbonibus ad quadrantem anteriorem positis. Long. 12; alt. 5 millim. Inhabits Hakodadi Bay in 5 fathoms, muddy bottom. W. S.

Described from a single, perhaps immature specimen. It is near to *S. velum* Say, though the dorsal margin appears more straight; and if the radiating striae are constant, it would be a good distinctive character.

**PSAMMOBIA SPATULATA.** T. tenuis, compressa, oblongo-ovata retrorsum angustata et ad extremitatem truncata, anticè rotundata; margine dorsali rectâ; marg. ventrali arcuatâ; umbonibus ad trientem posteriorem locatis, minutis; callo ligamentali elevato, intus suffulto; disco striis concentricis exilibus et striis radiantibus tenuioribus insculpto: color rufescens, lineis saturatioribus radiata, intus hepatica: cardo debilissimus. Long. 28; alt. 15; lat. 4 millim. Taken off the coast of China, 23° 30' N. in sand, 25 fathoms. W. S.

**PSAMMOBIA TENELLA.** T. tenuis, fragilis, alba, pellucida, glabra, elongato-elliptica, vel potius posticè angustior et subtruncata; umbonibus vix postmedianis, acutis; margine dorsali posticâ cristatâ, juxtâ umbonibus emarginatâ; declivitate umbonali conspicuo; extremitate anticâ rotundatâ; margine ventrali lentè arcuatâ. Long. 12; alt. 6; lat. 3 millim. Inhabits Hong Kong Harbor, in 8 fathoms. W. S.

**SEMELE DUPLICATA.** T. ovato-reniformis, tenuis, compressa, straminea, laminis erectis plerumque geminatis erectis propè apicem desideratis ornata; umbonibus postmedianis, elevatis; margine dorsali anticâ incurvatâ; marg. posticâ sensim arcuatâ; portione posticâ altiori, acutiori; plicâ submarginali obsoletâ: cardo debilis; dentibus lateralibus approximatis. Long. 20; alt. 16; lat. 6 millim. Inhabits Kagosima Bay, in 6 fathoms, sandy bottom. W. S.

Almost identical in form with *Tellina lyra*, which has a smooth fold and more remote ridges. *S. scabra* Hanley, is similar, but has radiating lines between the ridges. It probably grows larger.

**SEMELE ALVEATA.** T. subcircularis admodum convexa, ferè equilateralis, flava, concentricè laminato-striata; interspatiis radiatim clathratis, radiis laminas haud equitantibus; plicâ submarginali conspicuâ; margine dorsali excavatâ; extremitate posticâ subtrun-

catâ. Cavositas versus umbones flava. Long. 90; alt. 28; lat. 15 millim. Inhabits Loo Choo. W. S.

Some specimens in the Cuming Coll. are rather more solid.

**ERVILIA BISCULPTA.** T. crassa, elongata, ovato-trigonalis, alba vel purpurascens, concentricè sulcata exceptâ areâ postero-dorsali radiatim aratâ; umberibus purpureis vix antemedianis; extremitate anticâ rotundatâ; extrem. posticâ obliquè truncatâ, angulo postero-ventrali acuto; margine ventrali areuatâ: cavositas nitida; sinu siphonali angusto, linguiformi. Long. 6; alt. 4; lat. 3 millim. Inhabits Kagosima, in sand, 5 fath. W. S.

The coloration and sculpture is quite pretty and peculiar.

**ERVILIA LIVIDA.** T. minuta, tenuis, elongata, ovato-triangularis, anticè rotundata, posticè acuta, rufescens vel rubido obsoletè radiata (intus ejusmodi picta) concentricè striatula; umberibus vix antemedianis; cardo debilis. Long. 7; alt. 4; lat. 3 millim. Inhabits Kagosima Bay, in sand, 5 fathoms. W. S.

**SCROBICULARIA CADUCA.** T. parvula, tenuis, lucida, fragilis, submargaritacea, albida, ovata posticè obliquè truncata, subglobosa, equilateralis, striis concentricis exilibus, quibusdam utroque laminosis notata; declivitate umberali posticâ angulatâ: cavositas nitida, lineis lacteis concentricis exhibens. Long. 10; alt. 8; lat. 6 millim. Inhabits Loo Choo. W. S.

The hinge has one large and two small approximated cardinal teeth, with a triangular pit between.

**SCROBICULARIA (Capsa) ADUNCA.** T. ovato-triangularis, tumida, straminea, striis tenuibus concentricis lamellosis ordinatim insculpta; umberibus paulum antemedianis, acutis; extremitate anticâ semicirculari; extrem. posticâ triangulare, rostratâ; margine ventrali incurvâtâ; margine dorsali excavatâ, levi: cavositas intra lineam pallialem flavescens, extra pallidior: cardo validus. Long. 22; alt. 15; lat. 10 millim. Inhabits Loo Choo. W. S.

Quite remarkable for its sharp, hooked, beak-like posterior extremity. It is closely allied to *Neæra*, and looks much like *Gastrana fragilis*.

**TELLINA LUBRICA.** T. cuneata, salmonacea, lœvis; umberibus ferè terminalibus, acutis; extremitate anticâ elongato-ovali; extrem. posticâ latè truncatâ; plicâ submarginali inconspicuâ; dente antico laterali remoto, obsoleto; postico brevi, valido. Long. 14; alt. 9; lat. 4 millim. Inhabits Hakodadi Bay, in sandy mud, 6 fath. W. S.

Comes nearest to *T. felix*, which has an acute posterior angle. It also closely resembles *T. fabagella*.

**TELLINA EUGLYPTA.** T. solida, elongata, ovalis, ex albido flavescentis, costis concentricis elevatis remotis ornata, intervallis et paginâ

superiori costarum sulcis radiantibus recurvantibus posticè profundis aratis; umberibus medianis eminentibus; extremitatibus subacutis, posticâ subtruncatâ; margine ventrali posticè flexuosa. Cavositas polita, nitida. Long. 8; alt. 5; lat. 3 millim. Inhabits —?

A singular little shell, the generic place of which is somewhat doubtful. Its hinge of two cardinal and two lateral teeth, and its flexuous posterior margin and the deep pallial sinus bring it among the Tellinidæ; while its sculpture, solidity, and symmetry suggest *Corbis*, with which the hinge is not absolutely inconsistent.

**MACOMA LUNELLA.** T. parvula, alba, lœvis, ovato-triangularis, ventricosa; umberibus postmedianis, acutis; extremitate posticâ semicirculari; margine postero-dorsali citò declivi, extremitate truncatâ; areâ postero-dorsali crassè striatâ; margine postero-ventrali contractâ: cavositas levis, opalina; sinu profundo, rotundato, vix conspicuo; cardinis dentibus pusillis. Long. 10; alt. 8; lat. 6 millim. Inhabits China Seas, lat. 24° N. in 25 fathoms. W. S.

The shell most nearly approaching it is *T. mera* of the American Atlantic shore.

**TELLINA** (subg. *Arcopagia*) **SACCULARIA.** T. parvula, lucida, subglobosa, lactea, concentricè tenuissimè striata; umberibus postmedianis, rufescensibus eburneo lineatis; extremitate posticâ leviter truncatâ demum subsinuatâ; declivitate umberali obtuso: cardo satis validus; dentibus lateralibus duobus. Long. 10; alt. 9; lat. 6 millim. Inhabits Loo Choo. W. S.

Very like *T. perula* Gd, and possibly the same. It is less pouched, and destitute of concentric lamellar striae and the two peculiar white umbonal rays, though there are vernicular opaque markings.

**TELLINA** (*Arcopagia*) **CRATITIA.** T. tenuis, livida, compressa, ovato-triangularis, costis acutis reclinantibus ad 30 (minoribus posticè interpositis) radiata, et laminis crebris concentricis reflexis costas equitantibus cancellata; umberibus medianis; marginibus dorsalibus declivibus, subrectis; extremitate posticâ acutè rotundatâ, et plicâ inconspicua, umberali instructâ; margine ventrali arcuatâ, pectinatâ; cavositas nitida, sulculata. Long. 15; alt. 11; lat. 5 millim. Inhabits Loo Choo, sandy bottom, 8 fathoms. W. S.

Analogous to *T. scobinata*, but no species has been described with similar sculpture, which is much like that of *Venus marica*.

**LUTRARIA LUCIDA.** T. tenuis, alba, oblongo-ovata, subfalcata, concentricè undulata; umberibus ad trientem anteriorem positis, acutis, eminentibus; extremitate anticâ acutè rotundatâ, margine dorsali declivi; marg. posticâ concavâ, compressâ, extremitate truncatâ; declivitate umberali obtusa; cavositate porcellanâ; cardine debili. Long. 40; alt. 20; lat. 8 millim. Inhabits Kagosima. W. S.

Remarkable for its thin, lucid, fragile structure. A specimen in Mr. Cuming's Coll. is larger than those collected by the Expedition.

**SAXIDOMUS ARATUS.** T. crassa, exalbida, ovato-quadrata, epidermide tenui rufâ induta, liris profundis recliventibus concentricis arata; umbonibus ad trientem anteriorem positis; extremitate posticâ subquadratâ, obliquè truncatâ, angulis rotundatis, modicè hiante; delivitatem umbonali obtuso; extrem. anticâ minus elevatâ, rotundatâ, absque lunulâ: cavositas alba, margine simplici: cardo validus, dentibus in utrâque valvâ 4, in v. dextrâ posteriori, in v. sinistrâ anteriori multo majori. Long. 4.5; alt. 3; lat. 2 inches. Inhabits San Francisco.

Smaller than *S. Nuttalli*, the posterior dorsal portion more elevated, the valve more regularly convex, the beaks less prominent, which with the furrows and epidermis give it very distinct characters. *Venus maxima* Phil. cannot be very different from it.

**TAPES VERNICOSA.** T. solida, oblongo-ovata, ventricosa, nitida, supernè levis alibi concentricè sulcato-plicata, fulva flavidò maculata et radiis hepaticis interruptis 4 ornata; umbonibus vix antemedianis; lunulâ lanceolatâ; facie dorsali anticâ excavatâ; extremitate anticâ acutè rotundatâ; margine dorsali posticâ subrectâ, extremitate latè rotundatâ, subtruncatâ; marg. ventrali lentè arcuatâ; margine internâ simplici. Long. 3; alt. 2; lat. 1.5 poll. Inhabits Kagoshima Bay and off Hakodadi Cape, in coarse sand, 20 fathoms. W. S.

One of the most beautiful of the group, allied to *T. sulcata*, with which it agrees in form and size; it is more brilliantly colored, and the sulci are less general. *T. laterisulca* is differently colored, and the sulci end more abruptly. It is more brilliantly varnished than any other species. The young are nearly destitute of sulci.

**VENUS (Mercenaria) STIMPSONI.** T. solida, cinerea, ovato-cordata, satis convexa, laminis erectis concentricis confertis dispositè ornata; umbonibus antemedianis eminentibus, acutis, approximatis; facie dorsali antico concavo; lunulâ profundâ; extremitate anticâ compressâ, rotundatâ; facie dorsali posticâ arcuatâ, declivi, impressâ, nihil nisi striatâ; extremitate posticâ satis acutâ: cardo validus; cavositas et apophysis ligamentalis aurantiaci; sinu siphonali minimè profundo; margine internâ simplici. Long. 3.7; alt. 3.3; lat. 1.7 poll. Inhabits Hakodadi, 6 fathoms. W. S.

A fine species analogous to American Atlantic forms. Resembles *V. mercenaria* and *V. Mortoni*, but is less solid and less ventricose than either, having the white interior and closely laminated exterior of the latter.

**VENUS PUELLULA.** T. parvula, subcircularis, ovato-triangularis, solida, straminea rufo bi-vel tri-radiata; umbonibus medianis, eminentibus, purpureis; extremitate anticâ rotundatâ; margine dorsali posticâ angulatâ, rapidè declivi, apice truncato; margine ventrali semicirculari; disco radiis numerosis elevatis et costis compressis alveolato, costis marginem posticam haud attigentibus. Cavositas

rufo-purpurea; margine stramineâ, crenulatâ; margine cardinali purpureo-maculatâ. Long. 6; alt. 5; lat. 4 millim. Inhabits Ousima. W. S.

Looks like a miniature specimen of the variety of *V. marica*, figured in Sowerby's Thesaurus f. 110, yet seems in all respects adult.

**CHIONE ROSCIDA.** T. parva, elongato-ovata, compressa, glabra, nitida, anticè sulcis concentricis arata; umbonibus vix antemedianis; extremitate anticâ satis acutâ; extrem. posticâ magis rotundatâ; margine ventrali lentè arcuatâ; lunulâ lanceolatâ, depressâ, lineâ impressâ circumscriptâ: color lividus, radiis 2-3 et zonis concentricis incarnatis variegatus; intus ad limbum flavescens; disco incarnato. Long. 13; alt. 9; lat. 5 millim. Inhabits Harbors of Ousima, in sand, 15 fathoms. W. S.

A small, pretty shell, of the same type as *C. lilacina*.

**CALLISTA GLANDULA.** T. tenuis, albida, ovato-cordiformis, ventricosa, liris confertis concentricis tenuibus insculpta; umbonibus vix antemedianis tumidis; facie dorsali utroque concavo; lunulâ magnâ, malè impressâ; extremitate posticâ altiori, truncatâ; margine ventrali arcuatâ. Long. 25; alt. 21; lat. 19 millim. Inhabits Hong Kong. W. S.

A small inflated species, concentrically striated like *Dosinia*, resembling in form *D. varians* and *limatula*, but quite destitute of coloring.

**CARDILIA GEMMULATA.** T. minuta, solida, alba, quoad altitudinem ovato-triangularis, sub-obliqua, striis concentricis et radiantibus decussantibus elevatis insculpta, intersectionibus nodosis; umbonibus acutis, uncinatis; margine anticâ ferè verticali; marg. posticâ primò rectâ, deinde arcuatâ et in marginem ventram semicircularem desinente; valvis satis convexis ferè tectiformibus; margine internâ undulato-dentatâ; tabellâ ligamentali ferè obsoletâ. Long. 2; alt. 2.5; lat. 2 millim. Inhabits China Seas. W. S.

This is the third species known, and well distinguished by its sculpture. Only one valve was obtained.

**NUCULINA PRETIOSA.** T. minuta, obliquè ovato-crescentica, polita, nitida, fusco-viridis; apice acuto, curvato; margine dorsali primò rectâ, dein valde arcuatâ; margine ventrali incurvatâ; extremitate rotundatâ; paginâ interiori virescente; tabellâ cardinali latâ sensim retrorsum angustatâ; denticulis binis subapicalibus, duobus anticalibus, tribus post-apicalibus, laterali elongato, elevato, falcato, albo. Long. 4; lat. 3; alt. 3 millim. Inhabits Simon's Bay, Cape Good Hope. W. S.

This curious shell greatly resembles an apple-seed, and seems to be the only recent species yet obtained. One or more fossils have been found in the Eocene, on which the genus was founded by Deshayes.

The lateral tooth is so large, and bridges over the umbonal cavity so peculiarly that a single valve might be taken for a specimen of *Latia*, were it not for the cardinal range of denticles which are like tenon and mortise articulations, and not comblike, as in *Nucula* proper.

**LORIPES ROTATA.** T. solidula, flavescens, orbicularis, subglobosa, striis concentricis irregularibus utrinque plus minusve coalescentibus insculpta; umbonibus medianis parvis; lunulâ profundâ, striis impressis haud remotis inclusâ; margine internâ concinnè crenulatâ; cicatricibus profundis; sulco cardinali elongato; dente cardinali valido; dente laterali postico parvo; antico obsoleto. Diameter 59; lat. 5 millim. Inhabits Loo Choo. W. S.

**GOULDIA DILECTA.** T. minuta, obliqua, rotundato-cordata, subglobosa, alba, polita, anticè admodum concentricè undulata; umbonibus submedianis; margine internâ simplici; sinu palliali obvio. Long. et alt. 4; lat. 2 millim. Inhabits Kagosima. W. S.

The generic characters are well marked, and this is the only species yet known from the Eastern Seas.

**MYSIA (Felania) USTA.** T. obliquè rotundato-ovata, lenticularis, crassa, concentricè undulata, epidermide piceâ durâ induta; umbonibus vix antemedianis, acutis; lunulâ parvâ, lanceolatâ; extremitate anticâ subcirculari; extrem. posticâ acutiori, obliquâ; ligamento conspicuo: cavositas ex albo viridans, costâ ab umbone usque ad cicatricem anteriorem munita; margine interiori simplici; dente laterali antico minimo vel obsoleto. Long. 30; alt. 27; lat. 15 millim. Inhabits Hakodadi Bay, in sandy mud, 8 fath. W. S.

It has the general aspect of *Astarte*, with its thick, dark epidermis, but has the hinge of *Mysia*, subgen. *Felania*.

**MYSIA DOLABRATA.** T. parva, compressa, symmetrica, rotundato-quadrata, flavescens, glabra; umbonibus medianis, parvis, acutis; costâ internâ intra-umbonali exili, posticè submarginali. Long. 10; alt. 10; lat. 4 millim. Inhabits Simon's Bay, Cape Good Hope. W. S.

Generally resembles *Felania Senegalensis*.

**MYSIA FIGLINA.** T. obliquè rotundata, lenticularis, nitida, concentricè striolata, pallidè argillacea; umbonibus acutis vix antemedianis; disco intus calcareo; dentibus cardinalibus validis; costâ intra-umbonali obliquâ, satis conspicua. Long. 18; alt. 16; lat. 6 millim. Dredged off the east coast of Japan, lat. 37°, in coarse, black sand, 20 fathoms. W. S.

Has a peculiar argillaceous look which may serve to distinguish it from other species. *M. dolabrata* scarcely differs except in polish, size, and obliquity of beaks.

**MYSIA ABBREVIATA.** T. tenuis, fragilis, straminea, glabra, subglo-

bosa, posticè valdè truncata, supernè compressa; declivitate umbonali angulatâ; anticè rotundatâ; umbonibus medianis, tumidis, acutis; lineis incrementi conspicuis: cavositas cretacea, citrina. Long. 20; alt. 17; lat. 12 millim. Inhabits Hong Kong harbor. W. S.

**MYSIA OBLIQUA.** T. parvula, obliquè rotundato-ovata, lenticularis, flavescens, zonis incrementi raris ornata; umbonibus antemedianis; regione posticâ latiori, rotundatâ; margine ventrali obliquè arcuatâ; costâ internâ umbonali tenuissimâ; cardine debilissimo. Long. 8; alt. 7; lat. 3.5 millim. Inhabits Loo Choo. W. S.

Has no very marked characters, but in general is like a small *M. globularis* Lk. It is more globose than *M. figlina*. It is possibly a very small specimen of *Diplodonta Koreensis* Ad. and Rv.

**LEPTON FIRMATUM.** T. subtrigona, planata, lactea, subdiaphana, glabra; umbonibus medianis, haud eminentibus; margine ventrali ferè rectâ; paginâ interiore subrugosâ; cicatricibus subrotundis; dentibus curtis, validis. Long. 5+; lat. 2+; alt. 4 millim. Inhabits sand at low water, Simon's Bay. W. S.

In shape like *L. squamosum*, but distinguished by its short, stout teeth. The rugosities are probably caused by a perforating parasite.

**LEPTON CONCENTRICUM.** T. ovato-triangularis, subplana, concentricè concinnè lirata (liris acutis), epidermide subrugosâ marginem implicante induta; umbonibus postmedianis, acutis; cicatricibus subelongatis; lineâ pallii è margine remotâ; dentibus minimis, lateralibus utrâque valvâ remotis, ferè obsoletis; valvæ dextræ dente cardinali uno; v. sinistrae dentibus duobus minimis margini contiguis. Long. 10; lat. 4—; alt. 7+ millim. Inhabits Sydney harbor. W. S.

This beautiful species is easily known by its minute teeth, concentric sculpture and abundant epidermis. Its shape is unusually unsymmetrical. It not unlikely belongs to a genus not yet established.

**LEPTON LUCIDUM.** T. parva, tenuis, nitida, alba, ovato-quadrata, posticè dilatata, concentricè striolata et obsoletè radiata; umbonibus medianis acutis tumidis; margine dorsali rectâ; extremitatibus obliquis, angulis ventralibus acutis rotundatis; margine ventrali vix arcuatâ. Long. 9; alt. 6; lat. 3 millim. Inhabits Hong Kong harbor. W. S.

**KELLIA CRENULATA.** T. tenuis, flavescens, trapezoidea, marginibus plerumque rotundatis; margine ventrali rectâ et compressâ; umbonibus ferè medianis, prominentibus; lineis incrementi conspicuis; totâ paginâ interiori rugulosâ, cardinem versus marginibus crenulatis; dente cardinali conspicuo, conico, altero celato fossam ligamenti metiente; dente laterali singulo, curto, haud obvio. Long. 9.5; alt. 6.5; lat. 4+ millim. Inhabits Hong Kong harbor. W. S.

Readily known by its crenulated hinge margin. It has the aspect of *Scintilla*, from which it differs in its teeth and ligament. Only one valve was found.

This and the five following species plainly belong to the family Kelliadæ; but their precise generic place is less easily decided, and indeed cannot be, without further knowledge of the animals. I have placed them under the old genus Kellia, stating in what respects they verge toward later genera. Mr. P. P. Carpenter has for the most part worked out for me these minute bivalves.

**KELLIA BALAUSTINA.** T. minuta, nitida, rotundato-ovata, rubiginosa, subdiaphana, lineis concentricis creberrimis insculpta; umbonibus submedianis, eminentibus; margine ventrali valde arcuatâ; marginibus cardinalibus rubidis; valvæ alteræ dentibus card. duobus parvis, dentibus lateralibus brevissimis, postico ferè obsoleto; valvæ alteræ dentibus lateralibus curtis, antico obsoleto, dente cardinali unico, valido. Long. 2.5; alt. 2 millim. Inhabits Sydney harbor. W. S.

Three fresh specimens were obtained, resembling *Astarte triangularis*. The lateral teeth are very short, and but from analogy might be described as cardinal.

**KELLIA BULLA.** T. tenuissima, diaphana, ventricosa, elliptica, posticè truncata, lineis incrementi vix conspicuis; umbonibus parum exstantibus; valvæ alteræ dente cardinali debili, subelongato, torto; dente laterali curto parum elevato; valvæ alteræ —? Long. 8+; lat. 6; alt. 6+ millim. Inhabits Loo Choo. W. S.

Distinguished by the swollen, slightly prominent umbos; teeth short and delicate.

**KELLIA UNDULATA.** T. minuta, tenuis, ovato-quadrata, tumida, concentricè undulato-striata, flavidro-rosaceo tincta; umbonibus vix ante-medianis, elevatis; extremitate anticâ acutè rotundatâ; extrem. posticâ latiori, subtruncatâ; margine ventrali lentè arcuatâ, dimidio postico cavositatis vividè miniato. Long. 2; lat. et alt. 1.5 millim. Inhabits Kagosima. W. S.

**KELLIA COMPACTA.** T. equilateralis, subquadrata, epidermide extra marginem productâ benè induta, striis concentricis lamellosis ornata; umbonibus haud eminentibus; marginibus dorsalibus rectis, declivibus; marg. ventrali rectâ: extremitatibus rotundatis; cicatricibus ovalibus; lineâ pallii simplici; valvulæ alteræ dentibus duobus magnis, divergentibus, equalibus; alteræ marginibus dentibus simulantibus, elongatis; fossâ ligamentali amplâ. Long. 6+; lat. 3+; alt. 5 millim. Inhabits —?

Resembles in form *Bornia corbuloides* Phil. The prolonged infolded epidermis brings it in alliance with Lepton; but its hinge is like that of *Pythina* Hinds. A knowledge of the animal can alone remove it definitively from the old genus Kellia.

**KELLIA CONVEXA.** T. parva, trigono-elliptica, plus minusve in-

flata, facie variabilis, striis concentricis confertis notata et epidermide rugosâ inflectâ induita; umbonibus ferè medianis, tumentibus, plus minusve prominentibus; margine ventrali rectâ vel incurvatâ; extremitatibus rotundatis; cicatricibus inconspicuis; ligamento interno ossiculâ firmato. Long. 4+; lat. 1; alt. 3+ millim. Inhabits Simon's Bay, in sand, 12 fathoms. W. S.

The hinge is as in *K. compacta*, but the ossicle at the hinge seems to bring it under *Montacuta*. In young specimens there is a punctate appearance by transmitted light. Its true place must be decided by the animal. It is very variable in outline.

**MONTACUTA DIVARICATA.** T. minuta, tenuis, albida, obliquè ovato-trigonalis, cuneata, convexiuscula, liris tenuibus interdum bifurcatis radiata; umbonibus acutis terminalibus; extrem. posticâ latè truncatâ; portione anticâ semiovali, acutè rotundatâ. Ossiculum anticè quadratum, posticè triangulare truncatum. Inhabits Hakodadi, on the spines of a Spatangus. W. S.

This interesting little species is readily distinguished by its very oblique, cuneate form, and radiated surface.

**CRYPTODON SUBRADIATUS.** T. rotundato-elliptica, planata, marginibus rotundatis; umbonibus angustis prominentibus, medianis; extus lirulis radiantibus subimpressis margines versus conspicuis disco obsoletis; lineis incrementi conspicuis remotis fluctuosis; intus cicatricibus elongatis; lineâ palliali interruptâ, punctatâ; valvæ alteræ dente cardinali subulato, lateralibus subobsoletis; valvæ alteræ —? Long. 3.75; alt. 3; lat. 2 millim. Inhabits St. Simon's Bay. W. S.

Only one valve was found. The bands of growth are alternately opaque and diaphanous, and the pallial line is broken into dots as in *Lucina* proper.

**CRYPTODON POLYGONIUS.** T. parvula, tenuis, fragilis, lucida, alba, globoso-quadrata, striis incrementi leniter insculpta; umbonibus medianis eminentibus, tumidis; extremitate anticâ acutâ; extrem. posticâ latiori, obliquè truncatâ, angulo postero-ventrali acuto; margine ventrali et margine anticâ continuatim arcuatâ; portione postico angulis binis radiato. Long. 4; alt. 3.5; lat. 3 millim. Inhabits Simon's Bay. Cape Good Hope. W. S.

It is larger, more equal in its diameters, thinner and more angular in front than *C. flexuosus*.

**SCINTILLA THORACICA.** T. parva, tenuis, lucida, nitida, elongata, tumida, subovalis, minutissimè radiatim striata et fasciis concentricis etiam punctis lacteis ornata; umbonibus antemedianis, minutis; extremitate anticâ rotundatâ; extrem. posticâ altiori, obliquè subtruncatâ; limbo tenuissimo; cicatricibus benè impressis. Long. 13; alt. 8; lat. 4 millim. Inhabits Ousima. W. S.

**LUCINA (Myrtea) SEMINULA.** T. minuta, crassa, albida, globosotriangularis, sulcis et laminis elevatis undulatis subcrenulatis ad extremitatibus ferè spinosis insculpta; umbonibus vix post-medianis; lunulâ cordatâ, profundâ, et posticè foveâ ligamentali lanceolatâ instructis; junctione dorsali antico angulato; ab umbone ad junctionem antero-ventralem striata; extremitate posticâ biangulatâ, sulco ab umbone aream minus insculptam secerente: cardo validus; margine interiori crassâ penitus crenulatâ. Diam. 3 millim. Inhabits Hong Kong harbor. Common in 5–10 fathoms, shell sand. W. S.

Remarkable for its great solidity and the depths of its sculpture.

**LUCINA (Codakia) PARVULA.** T. obliquè ovato-cordiformis, tenuis, flavescentia, tumida, concentricè laminato-lirata et radiatim striata, striis utrinque excurvatis et interdum divaricantibus, intersectionibus indentatis; umbonibus elevatis, post-medianis; lunulâ excavatâ; margine internâ exiguè crenulatâ; dente lateralí antico obsoleto. Long. 7; alt. 6; lat. 4 millim. Inhabits Port Lloyd, Bonin Island; Loo Choo; Hakodadi, in sand, 6 to 20 fathoms. W. S., and Captain Rodgers.

The characters are much the same in *C. obliqua* Rv., a much larger shell. Specimens from Hakodadi are less deeply sculptured, and perhaps more orbicular; but on the whole the differences are not enough to warrant a separate description.

**YOLDIA OBTUSA.** T. tenuis, glabra, dilutè flavo-virens, transversim ovalis vel potius subcrescentia, tumida; umbonibus parvis ad trientem sitis; extremitate anticâ acutâ; margine dorsali posticâ rectâ demum declivi; extrem. posticâ rotundatâ; margine ventrali valde arcuatâ; areâ dorsali angustâ haud circumscriptâ; cardine debili, denticulis anticis 20, posticis 24 instrueto. Long. 16; alt. 9; lat. 6 millim. Inhabits Hong Kong harbor, in mud, 6–10 fathoms. W. S.

Generally resembles *Y. sapotilla* G. but is less attenuated than any species I have seen.

**NUCULA PARVULA.** T. minuta, flavescentia, ovato-cuneata; disco glabro, limbo striis exilibus confertis radiato; umbonibus tumidis, post-medianis; extremitate anticâ acutâ admodum nasutâ; extrem. posticâ rectangulari; margine internâ crenulatâ. Long. 2; lat. 1.5; alt. 1.5 millim. Hong Kong harbor, in 8 fathoms, muddy bottom. W. S.

Allied to *N. nana* Hinds.

**NUCULA (Acila) INSIGNIS.** T. magna, solida, obliquè ovato-triangularis, ventricosa, sulcis e linea medianâ divaricantibus interdum propè marginem bifurcatis arata, epidermide olivaceâ induta; umbonibus posticis, ferè terminalibus, conspicuis; extremitate posteriori verticali, angulo ventrali obtuso, areâ dorsali depressâ, cristatâ, vallibus

acutis circumscriptâ; portione antico ovato: cavositas salmonacea, argentata; denticulis anticis circiter 20; posticis 10. Long. 15; alt. 12; lat. 8 millim. Dredged off the east coast of Japan, lat. 37°, and at Hakodadi. W. S.

The description of *N. mirabilis* Hinds would apply in general to this shell; but in the figure, the postero-ventral junction is more acute angled, and there are angular markings represented at the extremities. In one of our specimens there is a double series of zigzags down the disk.

**LEDA CUSPIDATA.** T. parva, olivacea, concentricè sulcata, pyriformis, anticè subglobosa, posticè subitò contracta, rostrata; umbonibus paulum antemedianis; areâ dorsali posticâ amplâ, cristatâ, carinis submarginalibus circumscriptâ; dentibus cardinalibus anticis 12, posticis 14. Long. 7; alt. 4; lat. 3 millim. Inhabits Hong Kong harbor, in mud, 8 fathoms. W. S.

Approaches nearest to *Leda retusa*.

**MODIOLARIA CUPREA.** T. trapezoidea, ventricosa, tenuis; epidermide ochraceâ; umbonibus obtusis; extremitate anticâ insolite obtusâ, ferè verticali; margine dorsali lentè arcuatâ, quoad marginem ventralē ferè rectam parallelâ; extrem. posticâ obtusâ; valvis absque angulis; areis lateralibus tenuiter et inconspicue radiatis; areâ medianâ glabrâ: cavositas margaritacea, limbo cupreo; margine internâ crenulatâ. Long. 7; lat. 4; alt. 4.5 millim. Inhabits Kagoshima Bay. W. S.

An unusually short, quadrate species, and quite distinct in characters, so far as a single, not very fresh specimen can be relied on.

**MODIOLARIA EXPLETA.** T. parvula, elongata, ovato-trapezoidalis, dilutè virens fusco marmorata; umbonibus subterminalibus, acutis; extremitate anticâ acutâ; margine dorsali et marg. ventrali lentè arcuatis vix divergentibus; extrem. posticâ obtusâ; valvis tumidis ubique striis punctatis radiatis, ad aream medianam minus impressis; pagina interior margaritacea, marmorata; margine internâ utrinque crenulatâ. Long. 6; alt. 4; lat. 2 millim. Inhabits Hong Kong harbor. W. S.

The striation of the median area is peculiar to this species, so far as I know, bringing it near to *M. pectinula* G.

**MODIOLARIA VARICOSA.** T. tenuis, compressa, ovato-trapezoidalis, dilutè viridis, lineis fuscis angulatis ornata; umbonibus terminalibus; extremitate anticâ acutâ, marginibus arcuatis divergentibus; extrem. posticâ rotundatâ; areis lateralibus striis frequentibus radiantibus impressis; areâ medianâ striis concentricis vel etiam striis radiantibus solum insculptâ: pagina interior nacreo lineis angulatis rufis perlucentibus. Long. 9; alt. 6; lat. 2.5 millim. Inhabits Sydney, New South Wales. W. S.

Generally resembling *M. expleta* in form and coloration, but differing in size and the want of striae in the middle area. It is marked like *M. strigata* Hanley, a larger and less dilated shell.

**MODIOLARIA CUNEA**T. obliquè ovato-cuneata, ventricosa, tenuis; epidermide pallidè virente; umbonibus terminalibus extantibus decurvis; margine dorsali cristatâ, areuatâ; facie dorsali latâ, declivi; angulo antico-ventrali latè rotundato; margine ventrali aliquid pendente; extrem. posticâ angustè rotundatâ; areis terminalibus radiatim sulcatis, sulcis quadratis punctatis, anticis 16, posticis 30; areâ intermediâ concentricè striatâ: pagina interior vinaceo tineta vel marmorata; margine crenulatâ. Long. 12; alt. et lat. 7 millim. Inhabits False Bay, Cape Good Hope, at low-water mark, imbedded in the test of a large Ascidian, sometimes a dozen in an individual; also among rocks, 20 fathoms. W. S.

Very similar to *M. marmorata*, differing chiefly in being of a brownish or rosy color instead of pale green; the umbonal slope is more angular, and the point more acute; the striae are rather more numerous and more deeply impressed.

**M. ARCUATA.** T. parvula, gracilis, arcuata; margine ventrali incurvatâ; fastigio antero-dorsali elevato; umbonibus ad quadrantem anteriorem ventricosis; areis terminalibus concinnè radiato-striatis; areâ medianâ inornatâ. Long. 5; alt. 2 millim. Inhabits Kagosima. W. S.

**M. QUADRULA.** T. subquadrata, marginibus parallelis, ventrali vix incurvatâ; extremitate anticâ rotundatâ; extrem. posticâ obliquè truncatâ; apicebus ferè terminalibus; declivitate postero-dorsali modicè exposito; areis terminalibus radiato-striatis; areâ medianâ inornatâ. Long. 10; alt. 5 millim. Inhabits Kagosima. W. S.

The two latter descriptions are taken from two single valves, quite unusual in form; perhaps accidentally distorted.

**MYTILUS CORUSCUS.** T. pyriformis, margine ligamentali vix areuatâ; marg. postero-ventrali angulatâ, latè truncatâ; regione byssali lentè incurvatâ; facie anticâ latâ angulo submarginali limitatâ; epidermide crassâ piecâ anticè castaneâ; margine interiori nigrâ: cavositas ad cicatrices ex viridi iricolor argillaceo versus apicem mutata. Long. 65; alt. 38; lat. 25 millim. Inhabits Hakodadi Bay, common on rocks between tide marks. W. S.

A very symmetrical species, quite remarkable for the brilliancy of its interior.

**MYTILUS MUTABILIS.** T. elongata, margine byssali ferè rectâ; marg. dorsali lentè omnino arcuatâ in marginem ventralem continuâ; umbonibus pallidis, acutis, plerumque erosionis; valvis versus apicem radiatim sulcatis, sulcis sensim evanescentibus, alibi glabris, epidermide castaneâ nitidâ indutis; facie ventrali concinnè striatâ: cavositas hepaticâ. Long. 30; alt. 16; lat. 12 millim. Inhabits Kagosima Bay. W. S.

Like *M. trossulus* or small specimens of *M. edulis* in form, but much more elongated. The diverging furrows are quite coarse and obvious in some specimens, and in others obsolete; the fine striation in the neighborhood of the byssus may always be seen.

**SEPTIFER FURCILLATA.** T. parvula, pyriformis; margine ligamentali angulatâ, compressâ; declivitate umbonali elevatâ; facie ligamentali latâ, margine rectâ; sulcis quadratis divergentibus concinnae clathratis insculpta, sulco mediano et sulco subventrali majoribus, ex quibus sulci versus marginem recurvati exoriuntur. Long. 8; lat. et alt. 4 millim. Inhabits China Seas. W. S.

A somewhat worn valve furnishes the above description, which I venture to give because the sculpture is so peculiar. It has the form of *S. Cumingii*, but a much coarser sculpture.

**PECTEN LÆTUS.** T. rotundato-ovata, convexiuscula, vividè rufa; auriculâ parvâ ferè rectangulari; a. alterâ duplo longiori, acutangulari, extremitate arcuatâ; sinu byssali magno; valvæ integræ costis 10–12 majoribus laminas remotas erectas fornicatas gerentibus, 3–4 minoribus plus minusve muriculatis interpositis; v. alteræ costis frequentioribus minoribus squamigeris, costulis muriculatis interpositis; auriculis (nisi areâ ad sinum tendente) radiis numerosis spinulosis munitis; cavositas valvæ integræ rubricata; v. alteræ pallidior, ferè alba. Long. 3.5; alt. 3.75; lat. 1.5 poll. Inhabits Hakodadi Bay, in shelly mud, 10 fath. W. S.

Resembles generally *P. senatorius*, but is more elongated, the small ear longer, and the ribs much less regularly disposed. It is still more like *P. caurinus* G. in which the ribs are angular and more regularly disposed. In old and heavy specimens the scales are worn off; and in some young specimens, too, they are inconspicuous.

**OSTREA RIVULARIS.** T. discoidea, subcircularis, tenuis; valva inferior crassior, purpurascens, costis radiantibus remotis, interruptis, subtubulosis munita; v. superior simplex, rivulis ramosissimis purpurascens venosa: cavositas minimè profunda, ovata, alba cinereo latè marginata; cardine debili. Diam. 60; lat. 10 millim. Inhabits the China Seas, as indicated by shells adhering to it.

The rays of little tubes below, and the veins above, are unusually clear, distinctive characters.

**PLICATULA SIMPLEX.** T. parva, solida, einerea vel rubida, flabelliformis, symmetrica, quadrantem haud æquans; marginibus rectis, planulatis; costis præcipuis 6 et costulis numerosis lateralibus, etiam laminis concentricis numerosis munita. Long. 15; lat. 8 millim. Common at Kagoshima Bay and Simoda, 5–20 fath. W. S.

**PLACUNANOMIA UMBONATA.** T. discoidea, talcosa, fragilis, admodum levigata, straminea: valva superior obsoletè radiata, et umbonem

submarginalem monstrans; fossâ cardinali minimè profundâ: v. inferioris perforatione acuto-ovato; claviculâ vix dilatâtâ, quasi costâ secundum marginem perforationis prolongatâ. Diam. 25; lat. 4 milim. Inhabits Kagosima Bay. W. S.

It most resembles *P. clavicolata* from Mazatlan.

✓ OBSERVATIONS ON THE GENUS *COTTUS*, AND DESCRIPTIONS OF TWO NEW SPECIES (ABRIDGED FROM THE FORTHCOMING REPORT OF CAPT. J. H. SIMPSON), BY THEODORE GILL.

The genus *Cottus*, as restricted by Doctor Charles Girard, embraces species with and without palatine teeth, but in all other respects similar. If the arrangement of the teeth is in all cases of generic importance, the species of *Cotti* must then be distributed among two genera. Such genera would bear nearly the same relation to each other as the *Brytti* of Cuvier do to *Pomotis*; as the true *Scorpænæ* do to the genus *Scorpænopsis* of Heckel, and as many genera of *Clupeinae* bear to each other. For our present purposes we may, however, regard the *Cotti* as forming a single natural genus, all of whose species are very similar in form and structure, but, on account of the difference in dentition, are divisible into subgenera. As the type of the genus *Cottus* has no palatine teeth, that name must be restricted to species so distinguished; the *Cotti* with palatine teeth may then be designated by the name of *Potamocottus*. In the forthcoming report of Captain Simpson, the characteristics and nomenclature of the genus will be more fully discussed: It will be sufficient to state here that Dr. Girard's assertion, that, when young, some species of *Cottus* "exhibit teeth like asperities on the palatines," does not appear to apply to the typical *Cotti*, which seem always to have the palatine bones edentulous. The *Potamocotti*, on the contrary, of all sizes and ages, have teeth on those bones. Even if some of the typical *Cotti* have, in their youth, teeth which they lose with age, the fact would scarcely militate against assigning a certain value to a plan of dentition which is constant through life.

The species of *Potamocottus* now known are the *Cottus Richardsonii* of Agassiz, *Cottus meridionalis* of Girard, *Cottus Wilsonii* of Girard, and *Cottus Bairdii* of Girard.

The two new species of which diagnoses are now given, will be fully described and illustrated in the forthcoming Report by Captain J. H. Simpson, of his Explorations across the Continent in the years 1858 and 1859.

**POTAMOCOTTUS PUNCTULATUS Gill.**

This species has a form similar to those which are placed by Dr. Girard in the first division of the first section of his systematic distribution of the *Cotti*. The head is much depressed, and rhomboidal